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## **Implications for Africa of E-Gov Challenges for Giants South Africa and Nigeria**

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If the key goals of e-government and e-governance (e-gov is hereafter used to refer to both terms) are to enhance efficiency, effectiveness and transparency as well as aid citizen inclusion and participation in a democracy then giants South Africa (SA) and Nigeria are best-placed to lead the way not only in sub-Saharan Africa (SSA) but also the entire continent. This is because of their populous nature, vast economies, expansive geographical dimensions and the complexity of their political and administrative systems. While a recent UN report based on a global survey singled out SA as an e-gov exemplar in SSA, Nigeria only managed a second-best place in the worst ranked West Africa region. Hinged on the notion that the provision of government services and information through electronic or online means is a crucial way of popularizing information and communication technologies (ICTs) among populations, this chapter examines not only the challenges of e-governance initiatives but also probes the extent to which they could aid or hinder efficacious democracy.

The main purpose of this chapter is, therefore, not to provide a comprehensive coverage of the wide area of e-gov in Africa, but to focus on those aspects with implications for politics in general and democracy in particular. The chapter first gives an overview of e-gov then examines links with democracy before concluding with policy suggestions.

### **E-Gov in Perspective**

### ***Definitions***

The assertion by Bellamy and Taylor (2003, 3) that “little has been written on the information age as it relates to governing” no longer holds true. Academics, practitioners and students have in recent times addressed various issues around adoption, diffusion and impact of ICTs in local and central government not only for basic public information and communication but also for more ambitious policy goals that may deliberately or inadvertently increase or hinder public participation in socio-cultural and economic realms as well as political discourses.<sup>1</sup> However, much of the literatures acknowledge lack of consensus on the e-government concept (Prins 2001, 1-2; Chissick and Harrington 2004, 3; Misuraca 2007, pref., ch.1 sec.1.3; Saidi and Yared n.d., II.2; ). The interpretations are “varied, and sometimes conflicting” (Misuraca 2007, ch.1 doc.5 of 16). For this reason, it is imperative to briefly define the contradistinction between e-government (e-govt) and the related term of e-governance.

Scholars, the Commonwealth, UNDP, OECD, the EU Commission and the World Bank<sup>2</sup>, among others, offer various definitions (Chissick and Harrington 2004; Misuraca 2007, ch.1 sec.1.3). To Drucker (cited in White 2003), e-governance in particular is “is about *choice*...,” for both the government and citizens. To David L. McClure (cited in Oyawoye n.d., n.p.), it is more than just G2C; it also involves business (G2B, B2G), other government agencies (G2G), employees (G2E)—not to mention Oyawoye’s addition of C2G and E2G.<sup>3</sup> It is therefore “multi-dimensional, multi-actor, multi-level and inter-sectoral ..., influenced not only by the ICT-revolution, but mainly by globalization, international economic competition and state transformation” (Misuraca 2007, pref).

In essence, most authors attempt to capture a conceptual or paradigmatic shift from e-govt to e-governance (Misuraca 2007, ch.3 sec.3.5). The “old” model mainly

deemed as e-govt is more about e-service delivery (ESD), relatively passive automation, data-processing, internal workings and back-office functions while the “new” or “smart” model largely perceived as e-governance is more about relatively active interaction or communication, external workings and front-office functions (6 2001, 7; Heeks 2002, 4; Heeks 2004, 1, 2, 12; Chissick and Harrington 2004, 5-6; Misuraca 2007, pref., ch.1 sec.1.3, ch.3 sec.3.5; Oyawoye, n.d.; Saidi and Yared n.d., sec II.1). Combined, they involve governance “with and of” ICTs (Misuraca 2007, ch.1 sec.1.3), the first bureaucratic and the second innovative, transformative and citizen-empowering. The terms are complimentary, not mutually exclusive (Misuraca 2007, ch.1 sec.1.3; Oyawoye n.d.).

...although you can have e-government without it evolving into e-governance (as is basically the case now in Nigeria), it would probably be difficult to jump straight to e-governance ... (Oyawoye n.d.).

This therefore calls for sensitivity to “very specific environment and contextual atmosphere” (Misuraca 2007, pref.) within which these concepts are put into practice, with particular regard to the motivations.

### ***Rationale of E-Gov***

It is vital to understand “why and how ... new technologies are diffusing into government” (Bellamy and Taylor 2003, vii). There are various dimensions: economic, social and governance (Prins 2001, 4; Theunissen 2001, 202; Bellamy and Taylor 2003, 37 and 66; Krishna and Madon 2003, 2; Misuraca 2007, ch.3 sec.3.2, 3.5; Oyawoye

n.d.). Of greater interest for us in this chapter is the political dimension, which is often a spin-off rather than direct motivation for e-gov.

Theunissen (2001, 202) identifies one of two main reasons for e-gov as, “to enable expansion of the public sphere in a democracy”. Citing various sources, Misuraca (2007, ch.1) identifies some e-gov purposes as: improve “democratic processes” (EU Commission), “transparency and accountability” (UNDP), and “citizen empowerment” (the World Bank). Oyawoye (n.d.) lists eight specific objectives, including broad-based public awareness and citizen participation, achieving “digital democracy” by supporting e-mediated exchanges [facilitating dissemination of political information, opinion polling, campaigning, and contributions, and ultimately voting].

Within the three domains of e-gov Heeks (2002) identifies are aspects of interest to democracy. Of the four examples provided under the first domain of improving processes (e-administration), one—creating empowerment—specifically relates to democracy, elaborated on as “transferring power, authority and resources for processes from their existing locus to new locations” (Heeks 2002, 5). The second domain, connecting citizens (e-citizens and e-services), involves “citizens either as voters/stakeholders from whom the African public sector should derive its legitimacy, or as customers who consume public services” (Heeks 2002, 6). The third domain is about building external interactions.

Another author, 6 (2001, 13-20) proposes four rival “theories” on e-governance that relate to motivations, one of them cautions theory of “technology as totem, fetish and foil in ritualized social conflict”—privileging socio-political rather than ICT-driven shaping.<sup>4</sup>

### ***Diffusion of E-Gov in Africa***

Although 6 (2001, 9) traces the rise of e-governance to 1970s while Prins (2003, 2) argues that modern e-governance was launched in the US in 1993, Heeks (2002) indicates the concept is not new in Africa, as it can be traced back to early 1960s. In recent years, there has emerged great interest and literature on e-gov in Africa (Misuraca 2007; Okpaku 2007; Oyawoye n.d.). As with most other aspects of new media diffusion, the literature acknowledges a “digital divide” affecting Africa—and other developing regions—thus resulting in slow diffusion of e-gov (Theunissen 2001, 201; Krishna and Madon 2003: 5; Narayan 2007, 1). Barriers to e-governance diffusion in Africa relate to human [including leadership and strategic thinking], infrastructural, technological [including data systems], material, institutional and legal factors (Heeks 2002, 1; Misuraca 2007, ch.3 sec.3.5; Oyawoye n.d.). These internal and external factors have resulted largely in failure of e-gov initiatives in Africa.

Misuraca (2007) reports mixed results from studies of e-govt decentralization initiatives in Senegal’s Acacia initiative (no significant impact), Ghana’s modernized chieftaincy (unreliable link), Uganda’s DistrictNet (challenges hindering success), and Cape Town’s “Smart City” strategy in SA (unaltered racial divide). Heeks (2002, 10) identifies three types of results: “total” (e.g. a land-licensing system in SA, due to entrenched interests of powerful groups); “partial” (e.g. touch-screen kiosks in rural North-West SA, removed a year later due to lack of updated or local content); and success (e.g. tax systems in Egypt and Mauritius and SA election project).

Most e-gov initiatives fail due to a lack of proper understanding of the issues involved in implementation (Oyawoye n.d.). Even though to others “the central issue behind ICTs utilization in Africa is not a matter of technology transfer [as] it has everything to do with people's empowerment and society's ability to use the technology as a facilitator for democracy, a tool for universal access to services, opportunities and

resources” (Misuraca 2007, ch.3 sec.3.5), a large proportion of blame for failures has been attributed to external factors. To Okpaku (2007), low success rates “possibly lie, at least in part, elsewhere in global strategic, intellectual, cultural and policy assumptions that are eminently questionable.” Echoing this, Heeks (2002, 5) argues that for Africa, e-gov “is essentially an imported concept based on imported designs”, partly by Western trained civil servants, so one way forward would be to justify and understand ICTs “in the context of a broader vision and necessity for e-government in Africa”. There is need to strategically narrow design-reality gaps along the “third way” lines of contingency approach that “sees no single blueprint for success and failure [but] recognizes that there are situation-specific factors”—an approach that differs from the “factoral analysis”, which focuses on constraints, and Gidden's structuration theory or Callon's/Latour's actor network theory (Heeks 2002, 12). On his part, Oyawoye (n.d.) suggests 19 specific solutions, most of them commonsensical and universal—based on best practices.

Diverse as we are, African nations are more similar than different where ICTs are concerned. I would therefore like to see a set of African e-governance best practices developed and maintained ...The development of home-grown solutions should be encouraged.

Coleman (in UN-DESA 2008, 121) proposes three principles for devising efficacious e-gov strategies for Africa: African ownership; public-private partnership; and regular evaluation of impact. One useful strategy would be to supplement what I would term internet-governance (i-governance) with mobile governance (m-governance) “in a spoke and hub model... helpful in bridging the digital divide ...” (Narayan 2007, 1 and 13).

These could help address Africa's "lack of 'e-readiness for e-government'" (Heeks 2002, 1).

As things stand now, "African countries rank very low on the global measure of e-government readiness" (Kalu 2007)—defined by Heeks (in Misuraca 2007, ch.1 sec.1.3) as "available technological infrastructures, legal frameworks, institutional and human resources and political will". Africa "lagged far behind" in the 2008 UN e-govt readiness survey (UN-DESA 2008, xiii, 19; UN, cited by Perry 2008). It occupied the same "lowest in the world" position as it did in a similar survey for 2005 survey (UN-DESA 2005, 29). Although "most e-government projects, both in industrialized and developing countries, fail totally or partially" (Misuraca 2007, ch.3 sec.3.2) due to attendant implementation risks, Kalu (2007) suggests that "African leaders" need to address the continent's "low e-readiness ... by ... creating an enabling environment". There is need for caution, however, given sensitivity of politicians to political impact of ICTs as well as the necessity of cost-benefit analysis (cf Okpaku 2007).

For this reason, deployment of e-gov in Africa should be gradual and cautious. It is, however, worth noting that e-gov initiation and costs need not necessarily be restricted to the government given that "social computing" activities of civil society organizations and individuals are "positively contributing to realizing the key goals of better, simpler, joined-up and networked government" in the UK (Osimo and Punie 2008, 28, 31). Indeed, "despite the many indicators showing Africa at a disadvantage, the potential for growth through integrating ICTs in the governance systems is encouraging" (Misuraca 2007, ch.3 sec.3.5) with many countries such as Egypt, Ghana, Kenya, Mauritius, Morocco, Nigeria, South Africa and Tunisia, Ethiopia, Uganda, Gambia, Zimbabwe and Senegal developing supportive national ICT strategies and programs (Misuraca 2007, ch.4 sec.4.2). Many have developed e-government in various



areas at local and central government levels: e-administration, e-health, e-education, e-agriculture, e-customs, e-voting, e-policing, e-taxation, etc. In spite of a country like Kenya being still at the stage of automating back-offices (Okong'o 2005), it has a Directorate of E-Government ([www.egovernment.go.ke](http://www.egovernment.go.ke)). It is, however, the e-gov experiences and challenges of South Africa and Nigeria that has ramifications for the “movement” across especially SSA due to their standings on the continent.

The populations of SA (around 50 million) and Nigeria (around 150 million) as well as their sizes and influence make them Africa's India and China.<sup>5</sup> SA has relatively more resources than its neighbors—including in the realms of ICT (Parkinson 2005: Ch.2), which makes it “a standout e-government leader” in SSA (UN-DESA 2008, 26; Perry 2008). SA's “E-Government Access Strategy 2003-2008” shows clear focus areas (White 2003). In 2008, SA's e-govt readiness ranking was the highest in Africa whereas Nigeria was placed second to Cape Verde in the lowest-ranked West Africa region (Perry 2008; UN-DESA 2008). Although “Nigeria's immense and diverse population ... and its wealth of natural resources make it a microcosm of Africa” (Okafor 2008, blurb), its e-gov practice is “negatively impacted upon” by its “poor state of social infrastructure (especially power supply and road network)” (Dode 2007). All the same, Nigeria has made some strides in the much-needed local contextualization of e-gov.

In Nigeria, NITDA [National Information Technology Development Agency] has developed a (software) Nigerian keyboard that can generate local symbols and allows for the easier use of local languages on computers. All organs of the federal government have also been directed by President Obasanjo to make the only company (at that time) manufacturing computers

locally to an international standard, the supplier of first choice for computer systems...” (Oyawoye n.d.).

Most African countries are still struggling to make the paradigmatic shift from e-govt to e-governance, but this has not stopped them—especially the giants SA and Nigeria from making an effort in that direction, with implications for politics in these countries and around Africa.

### **E-Gov and Democracy in Africa**

Most political leaders, especially in Africa, embrace e-gov with the intention of enhancing government efficiency, including cost-saving, and pleasing donors rather than empowering citizens. Democratic outcomes are often spin-offs of administrative and economic imperatives. Although the impact on politics may be questionable (Okpaku 2007), if not “more a wishful thinking than a proven reality” (Misuraca 2007, ch.1 sec.1.3), a number of scholars indicate the link between e-gov and democracy cannot be wished away. “Better governance, thanks to the ICTs, would improve, according to Okot-Uma, democracy and ultimately peoples' lives” (Misuraca 2007, ch.1 sec.1.3), given the potential of ICTs “as catalysts and enablers for democratic governance and the promotion of democratic practices...” (Theunissen 2001, 202). Bellamy and Taylor (2003, 63) point out that one “fundamental” question with regard to e-gov “is whether the [often primary goal of] enhancements in efficiency and effectiveness ... are capable of creating a political momentum sufficient to overcome constitutional objections and political resistance ... .” Stressing the need for certain pre-conditions, Saidi and Yared (n.d.: secn 1.2) argue that apart from economic benefits, e-govt “as a major instrument for achieving ‘good governance’ ... *can* be an important source of ... democracy” as

long as it is “efficiently and purposefully implemented,” and is “accompanied by important investment... .”

One of the key assumptions of e-gov, from Stephen Clift’s definition of e-democracy (Misuraca 2007, ch.1 sec.1.3), is about it resulting in “more empowered citizens influencing policy priorities” (Prins 2001, 1), about the “increasingly powerful” nature of the “i” and “c” in ICTs as “the power of ICTs lies in their proleptical vision” (Bellamy and Taylor 2003, 63). This includes the “hugely potent claim that liberating the power of new technology” revolutionize government-citizen relations—“changing the terms of trade-off between efficiency, effectiveness, quality and democracy” (Bellamy and Taylor 2003, 65).<sup>6</sup> While Bellamy and Taylor (2003, 65-66) concur that “technologies *can*, undoubtedly, be used to alter the trade-offs between competing values in government”, their own “analysis ... show that the promise of ICTs is not as unambiguously benign as the advocates of reinvention suppose” given that “whether, how and where those trade-offs are made is, in practice, influenced by many factors, including political and bureaucratic motivations...”. The duo identify three archetypes of e-democracy or teledemocracy, “strong” (enabled by low-cost access to ICTs) or “populist” (top-down ‘teleocratic’ control) or “consumer” democracy, that can result from deployment of ICTs in governance, mainly depending on citizens’ level of engagement—“active” or “republican” and “passive” citizenship (Bellamy and Taylor 2003, 91-118). While consumer democracy—manifested through “bureaucratic processes and service delivery” with such aspects as “democratic intelligence” (information gathering by government), “managerial democracy” (competence and information base of public servants and party managers) and “telefascism” or “hi-tech totalitarianism” (by isolated individuals)—could “simply augment and speed up the

decentring of representative democracy, ... the potential exists for the use of ICTs to ‘recentre’ politics” (Bellamy and Taylor 2003, 117).

For while we argue that the “reinforcement of politics” thesis provides a powerful explanation of current trends, it begs the question of what character of politics is being reinforced (Bellamy and Taylor 2003, 117).

This link between *realpolitik* and e-gov is as true in Africa as it is elsewhere, hence various social, economic and political factors determine whether e-gov is accepted and implemented as well as how far it affects democracy. Recent events in Kenya and Zimbabwe show that democratic outcomes cannot just be down to information exchange, considering the role of factors such as violence and intimidation. All the same, given the largely oral nature of African populations, of crucial importance is the potential of cell phones “in conjunction with other converging technologies, to be one of the strongest catalysts in maintaining and facilitating democracy and democratic processes” (Theunissen 2001, 210).

Linked to e-democracy aspect of e-governance is the concept of e-participation in so far as “some measure of power” goes to the citizen from “the political and bureaucratic elite” (Misuraca 2007, ch.1 sec.1.3). The UN definition of e-participation emphasizes information-consultation-decision making process (Misuraca 2007, ch.1 sec.1.3; UN-DESA 2008, 17). Africa fairs badly in the UN e-participation index (UN-DESA 2008, 58, 60).

The fact that most African countries are ranked at the bottom end globally (UN-DESA 2008, Table 8, p.212), with only four in the top 50, shows most governments in the continent have yet to enhance their “ability to request, receive, and incorporate

feedback from constituents” in order to tailor “policy measures ... to meet the needs and priorities of citizens” (UN-DESA 2008, 58ff). Under e-information (the extent to which websites and portals provide basic information), Congo, Egypt and Togo use email to update their citizens and Togo uses RSS feeds to update and involve citizens. Under e-consultation, Botswana is one of developing countries that scored globally in the top 25 nations that employ interactive methods to solicit citizen opinion, feedback and input, such as online channels, including informal polls, bulletin boards, chat rooms/instant messaging, and weblogs (blogs), as well as formal online consultation; it is listed with Cameroon, Congo, Ghana, Mauritania and Mozambique among countries that use open web forum for discussing topics. Under e-decision-making, few African countries definitely acknowledge individual citizen input and commit to take it into account when making decisions; Mozambique is listed as the only African country that publishes findings/results of citizen opinions, including e-opinions, on websites.

It is worth noting that e-govt readiness ranking, and income level, does not necessarily correspond with e-participation as one may be tempted to expect. Countries in the top 11 e-govt readiness ranking in Africa, such as Kenya, Algeria and Tunisia, are in the bottom 20 e-participation rating while those with very good e-govt readiness ranking, such as Mauritius and Seychelles, have just average e-participation rating. Mozambique with poor e-govt readiness ranking tops the e-participation rating while Burkina Faso with very poor e-govt readiness rating is a decent fifth in e-participation. Nigeria’s rating shows it is making better use of its limited e-govt status in terms of e-participation. All the same, Angola, Egypt, Guinea-Bissau, Libya and to some extent Ethiopia and SA have their rankings corresponding in the two indexes. This shows that e-participation and e-democracy aspects of e-gov are more than just issues of access, including in relation to richness—given that a low income country tops Africa’s the e-

participation ranking while a number of lower middle and upper middle income countries are ranked lowly. These observations correspond with those by Misuraraca (2007, ch.1 sec.1.3), that so far, governments are mainly concerned with e-govt rather than e-governance. The twin issues of information access and active citizen participation are challenges for governments (Saidi and Yared n.d., IV.3.3), including through creation of environment supportive of other e-gov players.

### ***Implementation of E-Gov with Possible Impact on Democracy***

Saidi and Yared ( n.d. III.3) identify four broad areas of e-gov—administration, economic, social and political—each with various activities (G2B, G2G, G2C, etc), impacts and examples of good practice. The political aspect alone (laws and regulations, decision-making process, strategies and policies, leadership) has various activities (e-participation in the form of concerted action, connecting government to citizens, joined up government in terms of decision-making), assumed impacts (democratization reforms, strengthen accountability, speed up decision-making, improve quality of decision-making, enable innovative approach to government, increase transparency, create empowerment, strengthen capacity to investigate, develop and implement strategy and policy, anti-corruption drive) and examples (such supporting free and fair elections in South Africa) (Saidi and Yared n.d., II.3). In most of Africa, election is the most visible manifestation of democratic practice so it makes sense to examine attempts to deploy ICTs in these realms.

Some African electoral authorities have deployed ICTs in voter registration and e-voting. With regard to registration, optical mark recognition (OMR) and optical character recognition (OCR) have been used to record voter data in parts of Africa, such as in Tanzania's use of OMR (Pran and Merloe 2007, 46). The challenges of e-voting<sup>7</sup>,

compared to e-registration, “appear much greater and certainly more controversial” (Joint 2004, 391). Although it is perceived to “excite new opportunities” and tackle electorate apathy (Joint 2004: 391), issues surrounding e-voting include: security (tampering with recorded votes and impersonation); secrecy (undue influence or traceability of voter identity); transparency (open to relevant policing authorities); accuracy (recording process); ease of voting (convenience and access); speed and efficiency (expedite or delay process); effect on turnout (increase generally rather than benefit one particular social group); cost (justification) (Joint 2004: 393; Pran and Merloe 2007). Citing, among others, a 2001 Southern African Development Community report, Norms and Standards for Elections in the SADC Region, Pran and Merloe (2007, 54) point out that suspicion of e-voting is not surprising.

Because of difficulties with the observation of the electronic voting, it is likely that society will be skeptical toward e-voting systems in any country and particularly where there is not an established record of holding elections in accordance with minimum international standards.

One case is that of Nigeria, with at least 60 million registered voters and 120,000 polling stations (Umonbong 2006). The Electronic Voting Machine (EVM), proposed as the fourth<sup>8</sup> component of Electronic Voting System (EVS), was dropped for the 2007 general election after parliament rejected it (INEC n.d.). Critics cited unreliability given frequent power outage although, to borrow from Claude Ake, more to blame would be perceptions of “election malfeasance, as a variant of public corruption, symptomatic of the country's defective political culture” (Okafor 2006). Critical media reports at one

point provoked a clumsy Independent National Electoral Commission (INEC) response (INEC n.d.).

Ironically, Nigeria's migration from paper-based legacy voting system to EVS was "viewed as a means of ensuring free and fair elections" (ESRI 2007)—at least by the US-based commercial vendor if not the purchaser, INEC. The latter's argument was that "given the culture of election violence including ballot snatching, impersonation, ballot stuffing and vote rigging", EVS "will reduce to the barest minimum these unwholesome electoral malpractices" (Umonbong 2006). No one knows whether EVM would have made a difference, whether INEC was vindicated. Although the 2007 general elections resulted in a landmark power handover from one civilian government to another, they condemned by monitors "for pervasive vote-rigging, violence, intimidation, and fraud ... perpetrated by and with the connivance of the nation's security forces" (Okafor, blurb). To some observers, the rejection of EVM was machinated by "anti-democratic forces among the political elite who could not change from their nefarious habit of old" (Agu 2008). All the same INEC implemented the other aspects of EVS that did not involve actual voting (ESRI 2007), but with much difficulty resulting in legal challenge (Pran and Merloe 2007, 40).

The Nigerian experience shows the consequences of assumptions, about desirability of e-gov solutions, which lead to poor implementation strategies, especially inadequate preparation of public psyche and of the electoral agency. Based on seven dimensions for analyzing e-government success or failure, Boateng and Heeks (2003) examined an e-democracy application introduced in an unnamed West African country with the intention of making the electoral process more transparent (hopefully reducing post-election violence) and quicker. "Inscribed within the application's design were a number of inherent assumptions or requirements" (Heeks 2004, 4; Boateng and Heeks



2003)—about information, technology, processes, objectives/values, staffing/skills, management systems/structures, and other resources—incongruent with the implementation environment.

Many of these elements will be what [Bruno] Latour refers to as prescriptions: requirements, or assumptions, or expectations about the context of the user of the e-government application ... drawn from the world of the designer ... there are dangers of a mismatch ... (Heeks 2004, 6).

Perhaps this explains why e-election aspects of e-gov implementation in SA appeared to be less chaotic.

With at least 18 million voters and 15,000 polling stations in 400 constituencies (Mutula 2002), ICTs could help SA enhance efficiency and possibly transparency and accountability. In examining e-voting in the USA, the Netherlands, India and Nigeria with a view to drawing lessons for SA, Masuku (2006, 108) argues that “best practices regarding the planning of an e-voting system in South Africa may yield important lessons of experience for other African countries”. Pran and Merloe (2007, 21) point out that the internet has been used in SA “to communicate polling stations assignments to voters”. Under the theme, Connecting e-Citizens Heeks (2002, 6) identifies the use, by SA’s Independent Electoral Commission (IEC), of ICTs to support free and fair elections following the difficulties in the 1994 polls. IEC made it possible for members of the public to access their website to verify their voting status and find out, among others, where they must vote (Theunissen 2001, 205).

The effort included the creation of a nationwide satellite-based wide-area network and infrastructure; a bar-code system used to register 18.4 million voters in just nine days; a geographic information system used to create voting districts; a national common voters' role; a sophisticated election results centre for managing the process; and the training of 300,000 people. The massive program was completed in less than two years, in time for the vote (Heeks 2002, 6).

Similar details of the effort that won the IEC a major award 2000 are provided by Mutula (2002) who points out that heavy-duty servers at a giant call centre with fax facilities, and ability to collect and display results to the public, enabled even rural dwellers to participate in the electoral process.

ICT was used for voter registration, the polling process, relaying of ballot, collection and verification, and relaying of results of the elections throughout the country...The application was largely successful as the electoral process was expeditious, long queues during voting were not experienced, and the electoral process was accepted by the great majority of stakeholders as transparent, free and fair. The results of the election were released in record time and all eligible voters were registered and able to vote. Communication was maintained between the election monitoring centre and the entire country (Mutula 2002).

Compare this with the disputed Kenyan 2007 general election, especially the presidential one, before which the Electoral Commission of Kenya (ECK) had rejected a

mapping system among other ICT applications that would have enhanced the relay of accurate results. At an official enquiry into those elections, ECK chairman Mr Samuel Kivuitu admitted in August 2008 that the exercise was riddled with manual-paper errors. Officially, Kenya's e-gov position includes "enhancing the provision of election services online to ensure that there is no congestion at polling halls and that vote counting is done quickly" (Okong'o 2005). The problem lies in implementation, as has been the case not only in Nigeria but also in Uganda.

In Uganda, a \$22 million project to take digital photos of voters and match the images with the voters at polling stations in the 2001 general election aborted due to: lack of political will; a "big bang" approach rather than gradual introduction of the service; lack of capacity; and failure to involve the civil society (Anon 2002).

One aspect of implementation that needs to be taken into account is the fact that because most African ICT users fall in the grey area between a group that own ICTs and those that borrow access from friends and relatives as well as group-access centers, there is need for "re-intermediation models that insert a human intermediary between the citizen and the growing digital infrastructure of e-government" (Heeks 2002, 7). Such "intelligent intermediaries" could include professionals, public servants, NGOs and CBOs or other public institutions (ibid). It is for this reason that in the Golagang ("come together") public private partnership, SA wanted to give the 1.3 million public service employees an opportunity to acquire internet-connected PCs although the project failed due stakeholder to fears of economic risks (Levin 2002).

Considered least labor-intensive, central government web portal is a common e-gov solution adopted by most African governments. In SA, the primary government web resource is the home page, [www.gov.za](http://www.gov.za) "where access to all current and recent legislation, bills, speeches, government documents etc is provided" although "provision

is not, however, made for interactive services on these web pages” (Theunissen 2001, 204). The UN notes that there are some good pages.

South Africa has a strong online presence. The website of the Department of Labor ([www.labour.gov.za](http://www.labour.gov.za)) in particular, is an excellent example of a public agency website that is well tailored to the needs of its stakeholders... a full-featured site that is a one-stop shop for labor issues (UN-DESA 2008, 26; Perry 2008).

The website of a similar ministry in Central Africa is also distinguished. The Ministries of Labor and Social Welfare ([www.mapess.gv.ao](http://www.mapess.gv.ao)) of Angola “received high marks (80%) ... a one-stop shop website” (UN-DESA 2008, 23). Back to southern Africa, the Ministry of Finance of Lesotho ([www.finance.gov.ls](http://www.finance.gov.ls)) “permits its citizens to download forms ... and also offers an online feedback mechanism that allows citizens to ask questions or make a suggestion” (UN-DESA 2008, 26). In North Africa, the Ministry of Education of Egypt (<http://knowledge.moe.gov.eg/arabic/>) “has improved its website by making it more interactive” while the Ministry of Finance of Morocco ([www.finances.gov.ma](http://www.finances.gov.ma)) “allows its citizens to create accounts online, download financial statistics and retrieve achieved information...” (UN-DESA 2008, 25).

West African countries such as Cameroon started creating portals as far back as 2001 (Olivier 2002). One portal has been singled out for its e-participation excellence. The Burkinabe national portal ([www.primature.gov.bf](http://www.primature.gov.bf)) “is the only African portal which allows for online consultation” (UN-DESA 2008, 27). Other enhanced interactive websites in the region are the Ministry of Finance of Cape Verde (<http://www.minfin.cv>) and the Ministry of Health of Senegal ([www.sante.gouv.sn](http://www.sante.gouv.sn)). Nigeria Direct

([www.nigeria.gov.ng](http://www.nigeria.gov.ng)) official information gateway features opinion polls, with questions such as: “Should public office holders enjoy immunity?”<sup>9</sup> It also has provision for feedback, helpdesk and searchable directory, besides an interactive map with all states clickable—leading to basic information about each state and a link to their web portal. An interesting feature is “How do I?” link in various fields.

Eastern Africa boasts e-gov pioneer Rwanda (sometimes grouped in Central Africa), even though its E-Rwanda Project emphasizes mainly service delivery and the portal, [www.rwandagateway.org](http://www.rwandagateway.org) is mostly information-based rather than interactive. Their Ministry of Finance website ([www.minecofin.gov.rw](http://www.minecofin.gov.rw)), available in English and French, is “improved” (UN-DESA 2008, 24). In the same region, the Ministry of Education of Mauritius (<http://ministry-education.gov.mu>) “allows citizens to register online and download forms ...” (UN-DESA 2008, 24). Also singled out for interactivity is Kenya’s portal.

The welcome page ([www.kenya.go.ke](http://www.kenya.go.ke)) is well laid out and easy to navigate... a step towards a “one-stop shop” design...Kenya's example shows how even countries with constrained resources can make solid progress in e-government (UN-DESA 2008, 24).

The last sentence is in reference to the specialist directorate referred to above. The Kenyan portal has provision for users to register and log in as well as to see “who’s online”, including guest (non-registered) users. There is provision for downloads (e.g. police assault or property-loss reporting forms) and links to information about constituencies, citizens and parliament, among others. The parliament link has “Parliament Tracker” section, for monitoring bills, order papers, legislative calendar and

committee businesses, as well as provisions for downloads, virtual tour, links to ministries and display of date and time. The e-government pages provides information on “the Digital Village Network (DVN) ... a mega-community initiative coordinated by ICTvillage.com that brings together individuals and organizations in the Government, public, private and civil society sector under one umbrella to radically transform Kenya’s economy, society and politics using ICT”.<sup>10</sup> The E-Citizenship link provides, among others, information about “who can vote” under Voting and Elections. There is a Discussion Forum, but with hardly any active discussions; there is also no clear provision for contact or feedback.

Kenyan legislators were perhaps spurred on to support e-gov after some of them visited Rwanda and remarked: “The system of governance and technology in Rwanda makes our Parliament look Victorian and archaic” (NT 2005). In 2008, newly elected Speaker of the Kenyan National Assembly, Mr Kenneth Marende, in his acceptance speech, said the voting process in Parliament would have been less tedious had it been conducted electronically (Limo 2008). Yet MPs in the previous parliament exhibited their conservative streaks when some of them objected to their profiles appearing on the parliament website. This reinforces the findings of Taylor and Burt (2001, 34-36), that a number of parliament web pages “have only basic information about the institution and key leaders (such as MPs) but hardly provide citizen services or provide for active citizenship or support electronic access or have innovative features”. They elaborate:

Far from this [democratic] deficit [in many Western political institutions],  
Parliaments, as expressed through their websites, are locked in to a  
parliamentary model of democracy that prevents a more informative,

expressive, political, knowledge developing and activist approach to relationships with citizens (Taylor and Burt 2001, 38).

For Kenyans, even if Parliament is not fully reformed, “e-governance or digital democracy will be the guiding principle in the way government products and services are provided to the people” (Okong’o 2005). The government promises to “introduce and enhance e-talking to citizens by providing citizens with government publications ... through websites” (ibid.). Other initiatives in the e-strategy policy include “enhancing listening to citizens by increasing the input of citizens into public sector decisions and actions” (Okong’o 2005). However, it will take major campaigns, such as the August 2008 “Public Service Week”, and culture change for the mindset of public servants, often insistent on face-to-face interactions, to change.

As more and more African governments go online at national level, with the exception of a few “laggard” countries such as CAR, Somalia and Zambia (UN-DESA 2008, 46), some are already going online at local levels. One example is Gauteng Online ([www.gautengonline.gov.za](http://www.gautengonline.gov.za)). “Once the plan is fully operational, citizens will be able to interact with government at any time with minimal effort” (GPG n.d.). Members of the public without internet access can phone the Gauteng Provincial Government (GPG) contact centre to access the information on the portal. Other access channels include “multi-purpose community centers, digital villages, Gauteng Online computer laboratories in public schools and remote mobile computing vehicles” (GPG n.d.). In this way, basic e-government equations—G2C, G2B, G2G—get exponentially reproduced at local level, LG2C, LG2B and LG2Gn (where n = levels of government in a specific institutional setting) (Misuraca 2007, ch.4 sec.4.1).

## Conclusion

E-gov is not a panacea to governance and democracy problems. In fact some examples in this chapter show it could complicate matters, especially if poorly and hurriedly implemented. Problems at the 2000 US presidential election and several cases of loss of sensitive personal data in the UK show that there are e-gov hiccups even in the most advanced industrial nations.

Echoing Coleman (in UN-DESA 2008, 121), Heeks (2002) and Misuraca (2007), I would argue that deployment of e-gov in Africa needs to seriously consider home-grown solutions, with local content in mind and a possible adoption of flexible regional or pan-African strategy suggested by Oyawoye (n.d.)—but bearing in mind that no one strategy fits all (Misuraca 2007). Already, the NEPAD E-Commission has been attempting work in such directions. A second aspect is the need to strengthen Public Private Partnerships, attempted on e-gov in places like Singapore, to provide not only investment but also enrich the pool of what Heeks (2002) terms “intelligent” intermediaries so necessary for e-gov to succeed, especially in the initial stages, in Africa. A third imperative is the need to constantly evaluate the political participation, transparency and accountability aspects of e-gov initiatives, with a view to improvement rather than abandonment. Fourth, is the need to seriously exploit the “m-opportunity”, given the increasing number of cell phone subscribers-users in Africa, with projections of over 300 million subscribers by 2009 (Mendes et al 2007, citing Joss Gillet, 2007 in *Wireless Intelligence*). This offers an excellent, and rapidly growing, base from which to build access to not only banking but also other services through simple cell phone applications (Mendes et al. 2007, 40, 42).

Finally, to inspire public confidence, acceptance and trust, Africa needs to learn from its own mistakes as well as those of others, by taking into consideration issues of



data security. This is more crucial in Africa, where there is less experience of and enthusiasm for interaction with government through technology, than elsewhere.

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<sup>1</sup> See for instance Norris 2007.

<sup>2</sup> For more details, see the relevant World Bank web links at: [www.worldbank.org/egov](http://www.worldbank.org/egov)

<sup>3</sup> See also: Misuraca 2007, ch.3 sec.3.2; Chissick and Harrington 2004, 6-10.

<sup>4</sup> See source for the other three.

<sup>5</sup> It is these parameters that Damn and Thomas (2006) use to privilege a closer look at China's cyberspace politics.

<sup>6</sup> The discourse of "immense power" of ICTs, "empowering" millions is also highlighted by Theunissen (2001, 203).

<sup>7</sup> Types: telephone; SMS via mobile phones; internet, via PCs; electronic voting machines in a variety of places; digital TV; ATM or other bank machines (Joint 2004: 393-4).

<sup>8</sup> "Components of EVS are: Electronic Voters Register which had been in operation since 2002 and was used for compiling the voters register used in 2003 elections. The second component is Electronic Authentication, while the third is the Speedy Transmission of election results" (INEC n.d.).

<sup>9</sup> Gleaned during a visit in August 2008.

<sup>10</sup> See: <[http://www.e-government.go.ke/index.php?option=com\\_content&task=view&id=57&Itemid=1](http://www.e-government.go.ke/index.php?option=com_content&task=view&id=57&Itemid=1)>.